United States Department of Agriculture
Forest Service

High Knob Viewshed and Habitat Improvement Project

Environmental Assessment

Clinch Ranger District, George Washington and Jefferson National Forests

Wise County, Virginia

November 2019

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Introduction

The High Knob Viewshed and Habitat Improvement Project is a vegetation management and wildlife habitat improvement project located in Wise County, Virginia. The project area is approximately ten acres in size and located directly south of the city of Norton. The project is located within the Norton topographic quadrangle map. The following map (Figure 1) identifies the project area location.

The project area lies in the Clinch River Management Area (Forest Plan pp. 4-29), with a relatively small part in the Powell River / Stone Mountain Management Areas (Forest Plan pp.4-32), and includes the following management prescriptions: 8E4b Indiana Bat Secondary Buffer and 4D Botanical - Zoological Areas.

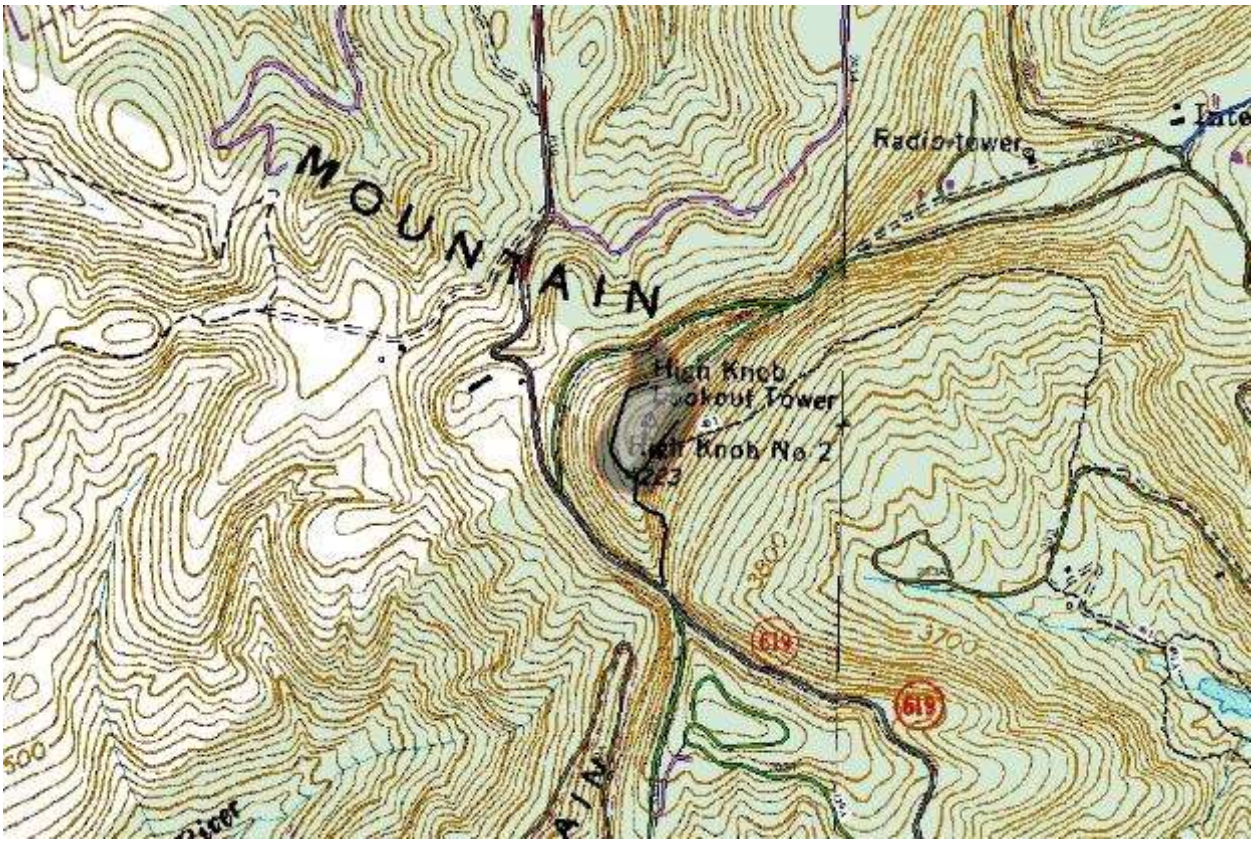

Figure 1. High Knob Viewshed and Habitat Improvement Project location

Purpose and Need

The purpose of this project is two-fold; to expand suitable pollinator habitat acreage adjacent to the High Knob Observation Tower and to maintain and enhance the scenic view. Pollinator habitat is critical for bees and other wildlife and will provide forage for the monarch butterfly as it migrates through the area. This project is needed to address concerns regarding the decline in

acreage of suitable pollinator habitat. Taking no action in the project area would forego a good opportunity to expand existing pollinator habitat.

Background

The High Knob sits on a small, grassy area cleared of trees surrounded by approximately two acres of existing pollinator habitat planted and maintained by the US Forest Service (USFS). Historically, the entire area around the tower (approximately 25 acres) was cleared and maintained in grass for a fire lookout (see Figure 2), but over time, the maintenance was limited to the immediate vicinity of the tower, and trees began to regrow in the formally open areas (see Figures 3-9, Appendix A).

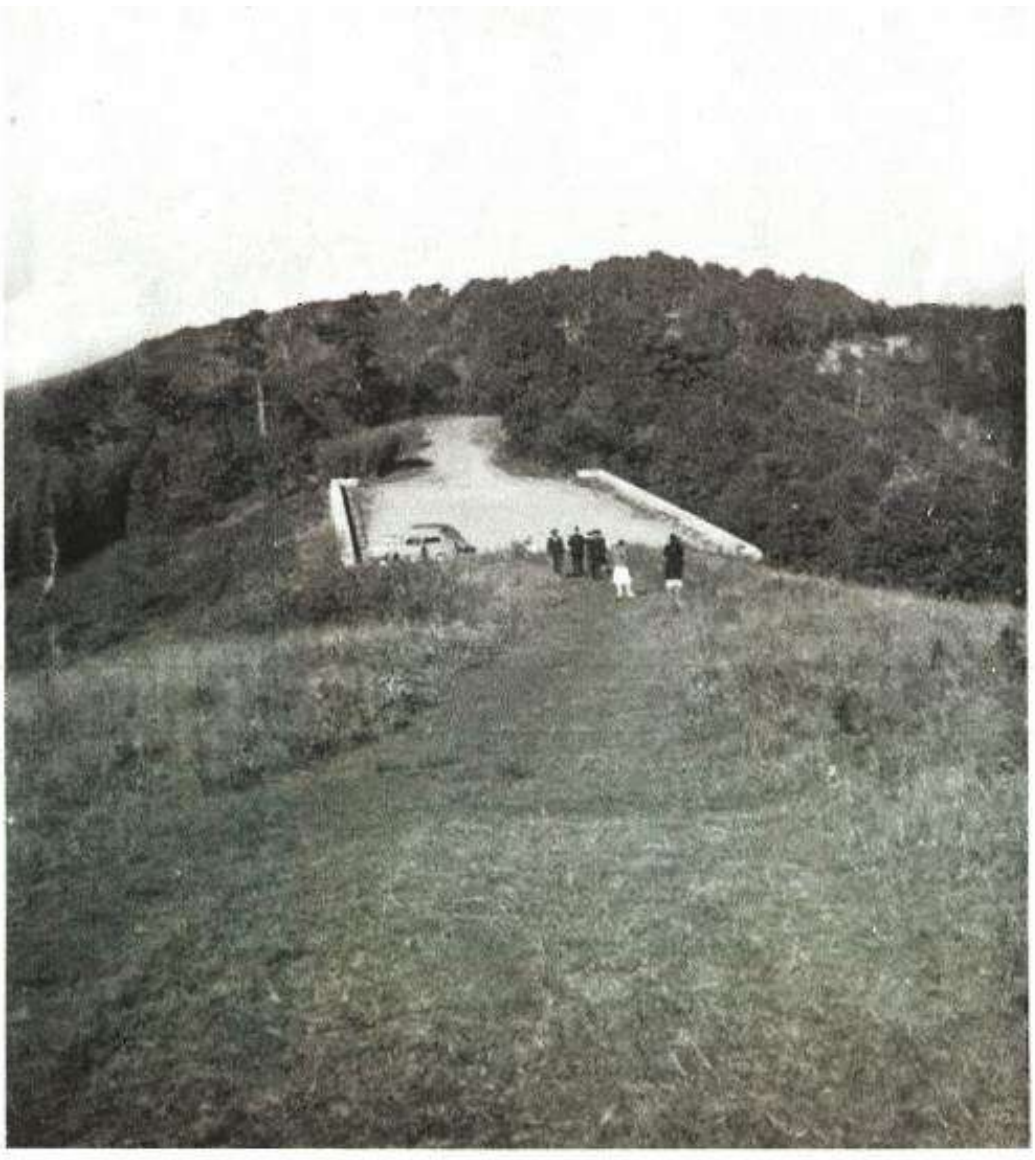

Figure 2. View from the High Knob Tower ca 1940.

As the trees have matured, more of the view has become obstructed each year. This project would provide the additional benefit of maintaining more open views around the tower; on clear days, visitors can see the adjoining states of Tennessee, Kentucky, North Carolina, and West Virginia.

Public Involvement

The High Knob Tower Viewshed and Habitat Improvement Project first appeared on the Clinch Ranger District's quarterly Schedule of Proposed Actions (SOPA) in July of 2019 as the High Knob Observation Tower Pollinator Habitat Expansion and has appeared on the schedule as such since that time. The project name has been updated with the release of this Environmental Assessment.

Scoping letters were mailed on April 12, 2019 to interested and affected agencies, organizations, and individuals informing them of the preliminary proposal and requesting their input. The initial proposal was to implement the treatment under a Categorical Exclusion for wildlife habitat improvement activities. Seven letters were received in response to this initial 30-day scoping period.

The comments received prompted an internal review that determined there was a need to consider chemical suppression to achieve the desired outcomes. It was concluded that an Environmental Assessment should be performed to analyze the expected effects from a proposed action that includes the use of herbicide.

Issues

Input gathered from all sources, internal and external, during the comment period was evaluated by the ID Team for relevance to the project. Some of the comments were determined to be not relevant (non-substantive) to the project because they are:

a) Beyond the scope of the proposal;
b) Unrelated to the decision being made;
c) Already decided by law, regulation or policy;
d) Conjectural in nature or not supported by scientific evidence; or,
e) General in nature (not specific to this project) or position statements not supported by reasons.

Comments deemed relevant are considered in formulating and developing alternatives, identifying applicable design criteria and/or mitigation measures, and in tracking and disclosing environmental effects. The following issues were derived from these comments and were considered in the environmental analysis.

1. Ground disturbance associated with timber harvesting activities and road construction may degrade the water quality of the streams in the area due to an increase in sediment from erosion; possibly impacting downstream threatened and endangered aquatic species.
2. Timber harvesting activities and habitat conversion may aide in the establishment and spread of non-native invasive weeds. Non-native invasive plant species are present in the project area.
3. Herbicide treatments would be needed within the project area to control non-native invasive and undesirable plant species.
4. Expansion and maintenance of the existing pollinator habitat may enhance the opportunities for scenic and wildlife viewing.

Decision to be Made

Based on the stated purpose and need, the Responsible Official, for this project the Clinch District Ranger, will review the analysis in the Environmental Assessment (EA) for this project and decide the following:

- Whether the proposed action and alternatives could result in a significant impact requiring an environmental impact statement to be prepared.
- Whether to implement the proposed action or another alternative, specific design criteria, mitigation measures, and/or project monitoring.

Alternatives

Proposed Action

Progress towards both of the objectives of this project will be completed by cutting trees and removing biomass within the immediate ten acres surrounding the tower using approved silvicultural harvesting methods.

Existing non-native species, red maple, and other undesirable species will be treated with a basal bark herbicide application of triclopyr with an adjuvant or low volume foliar spray of glyphosate. Cut stumps will be treated with triclopyr to prevent sprouting. This activity will help complete the conversion of the area to grasses and forbs and maintain, enhance, and restore the diversity and complexity of the native vegetation in the project area. Only individual invasive or undesirable plants scattered over the ten acres would be treated (either non-native invasive species or other unwanted woody vegetation that compete with the desired grasses and forbs

Additional herbicide treatment may occur on an as-needed basis to control sprouting of cut trees and seeding-in of trees from the surrounding stand.

Grasses and forbs in the seed bank will be allowed to grow in the newly treeless area. Supplemental planting may occur as needed with approved, native seeds. Over time, as stumps rot, part of the area may become tillable. Should the area become tillable and grass and forb cover is still not up to acceptable levels, the area may be tilled and planted. Once established, the pollinator habitat may be prescribed burned on a three to five year rotation to maintain the habitat and control tree growth.

Additionally, a power pole with transformer is located on site and could pose a long-term risk of leaching chemicals into the soil around the pole. If funding becomes available, this pole, and the power line that runs through the woods to it, would be removed to improve the viewshed and eliminate the risk of chemical spills into the soil.

Table 1. Proposed actions

Treatment / Action	Extent
Habitat Creation and Restoration Actions	
Mechanical harvest	10 acres
Herbicide management of non-native invasive and undesirable species	10 acres
Supplemental planting with native seeds	Up to 10 acres
Tilling	Less than 2 acres
Prescribed Burning	
Prescribed burn treatment on a 3 – 5 year rotation	13 acres
Skid Trails, and Landings [1]	
Skid trails	2,110 feet estimated 15 foot width = .7 acre
Log landings	1 landing estimated 0.25 acre
Other Activities	
Remove power pole and transformer	1 pole

[1] Estimates based on proposed treatment unit layout. Actual length and area is subject to site-specific variables.

Alternatives Eliminated from Detailed Study

Alternatives were considered but not proposed for detailed study because they did not meet the project Purpose and Need, were inconsistent with Forest Plan management direction, or were not feasible due to existing conditions in the project area. Potential alternatives that received the most consideration but dropped from detailed analysis are described below.

No Action

No vegetative treatments or other actions described in this document would be implemented under this alternative. Current management would continue. The no action alternative recognizes that ecosystems change in the absence of active management. It is essentially the "status quo" that allows current activities and policies to continue and has no effect on current trends. This alternative would not meet the purpose and need of the project as it would not increase the amount of available pollinator habitat.

Mechanical Removal of Stumps

The original scoping proposed the mechanical removal of stumps to facilitate tilling and mowing of the area. After considering scoping comments, the amount of ground disturbance, and the slope of the areas proposed for mowing, the decision was made to drop mechanical removal from further consideration. Herbicides will provide effective control of the tree regrowth without the ground disturbance initially proposed.

Design Criteria and Resource Protection Measures

The proposed action will follow the Forest-wide common standards stated in the Forest Plan.

Additionally, the walls surrounding the parking lot were built by the Civilian Conservation Corps (CCC) in the 1930s. No damage/modification of these walls is allowed.

Monitoring

Monitoring of the project actions will occur to ensure that various aspects of the project adhere to the standards of the Forest Plan, the applicable State Best Management Practices, and conform to project-specific resource protection measures set forth in this document. Monitoring will also occur to verify that accuracy of the predicted effects this assessment discloses.

Environmental Effects

The section describes the existing condition of the project area and discloses the anticipated direct, indirect, and cumulative effects of the proposed project. The Project Record provides a central location where project information used in analysis is filed and will remain accessible to the public until a final decision for the project is signed. The Project Record is available for public inspection at the Clinch Ranger District Office in Norton, VA.

Resources or Uses Not Present, Outside of Scope of Analysis, or Not Affected

Resources or uses that were not present, or not directly or indirectly impacted by the alternatives and not analyzed, or where analysis was out of the scope appropriate for this project include:

- Heritage and Cultural Resources
- Silviculture
- Lands and Special Uses
- Roads / Transportation Systems
- Inventoried Roadless Areas
- Wilderness

Additional details and analysis describing the resources and uses mentioned above are located in the Project Record.

Biological Environment

The timber stand surrounding the High Knob Tower proposed for conversion to pollinator habitat consists of oaks, maples, and cherries typical of the elevation and aspect in the general area.

Threatened, Endangered, and Sensitive Species

This section addresses the potential impacts of the proposed action on the threatened, endangered, and sensitive (TES) species within the project analysis area.

Forest Service regulations require that the project be reviewed to ensure that it does not contribute to loss of viability of any native or desired non-native species, or contribute to trends toward federal listing. The project must also comply with the requirements of the Endangered Species Act (ESA) and provide a process and standard to ensure that threatened, endangered, proposed, and sensitive species receive full consideration in the decision-making process using the best available science.

The following four TES species are known or suspected to occur in or near the project area or are potentially impacted by the proposed action. Other than these species, no other TES were

identified during field surveys or considered to exist within the project area or the aquatic cumulative effects boundary.

Table 2. TES within the Project Area.

Common Name	**Scientific Name**	Category	**Status**
Indiana bat	*Myotis sodalis*	Mammal	Endangered
Northern long-eared bat	*Myotis septentrionalis*	Mammal	Threatened
Tricolored bat	*Perimyotis subflavus*	Mammal	Sensitive
Monarch	*Danaus plexippus*	Insect	Sensitive

Through the appropriate application of Forest Plan guidance and project-specific design criteria, it can be reasonably concluded that there will be no significant effects to threatened, endangered, and sensitive species from the proposed action. Taking no action to implement treatments would maintain the status quo of habitat conditions and trends.

Locally Rare Species

This section summarizes the potential impacts of the proposed action on the locally rare species within the project analysis area.

Locally rare species are those species determined at the Forest level due to concerns about losing representation of that species on the Forest, even though they are secure range-wide. Locally rare species are analyzed if they occur within a county or watershed that overlaps with the project area and if appropriate habitat is present within the project area (excluding protected habitat types such as a wetland or riparian areas).

Aquatic Locally Rare Species

Five aquatic locally rare species range downstream from the project area in the Clinch and Powell Rivers, outside the cumulative effects boundary for this project (Table 3). There will be no effect to these aquatic species from the proposed action. Taking no action to implement treatments would maintain the status quo of habitat conditions and trends.

Table 3. Aquatic Locally Rare Species.

Common Name	**Latin Name**	**Category**
Steelcolor shiner	*Cyprinella whipplei*	Fish
Mirror shiner	*Notropis spectrunculus*	Fish
Fragile papershell	*Leptodea fragilis*	Freshwater mussel

Common Name	Latin Name	Category
Black sandshell	*Ligumia recta*	Freshwater mussel
Deertoe	*Truncilla truncata*	Freshwater mussel

Terrestrial Locally Rare Species

Five terrestrial locally rare species may be present within the project area (Table 4). For the four bird and mammal species, this project will be completed according to Forest Plan direction and standards and though some habitat will be disturbed, many acres will remain in an undisturbed state. A population of large-leaf phlox overlaps the project area. Part of this population will likely be negatively affected by the proposed action initially. After implementation, the open conditions could allow this flower to seed in from the remaining population outside the area of disturbance. In any event, roughly half of the area identified as the extant population will not be disturbed Therefore, the proposed action should not affect continued representation of these species on the George Washington and Jefferson National Forests (GWJNFs). Taking no action to implement treatments would maintain the status quo of habitat conditions and trends.

Table 4. Terrestrial Locally Rare Species.

Common Name	Latin Name	Category
Little brown bat	*Myotis lucifugus*	Mammal
Cooper's hawk	*Accipiter cooperi*	Bird
Sharp-shinned hawk	*Accipiter striatus*	Bird
Golden Eagle	*Aquila chrysaetos*	Bird
Large-leaf phlox	*Phlox amplifolia*	Plant

Management Indicator Species

This section addresses the potential impacts of the proposed action on the Management Indicator Species (MIS) within the project analysis area.

As described in the Forest Plan, MIS have been chosen to represent threatened and endangered species, species with special habitat needs, species commonly hunted, fished, or trapped (demand species), non-game species of special interest, and species that indicate effects to major biological communities. Specific habitat objectives related to these species are located in several places throughout the Forest Plan. The monitoring program outlined in Chapter 5 of the Forest Plan contains specific objectives for these management indicator species. During the course of identifying any issues pertaining to a project, consideration is given to the MIS.

Table 5. MIS selected for the project area.

Name – Common (*Latin*)	Justification
Eastern towhee (*Pipilo erythrophthalmus*)	Detected in survey
Eastern wild turkey (*Meleagris gallopavo*)	Not detected in survey, habitat could be created/enhanced with management activities
White-tailed deer (*Odocoileus virginianus*)	Detected in survey

Table 6. Population Trends among MIS Bird Species in the Appalachian Mountain Region of Virginia[2]

Species	Number of Observations	Trend 1966-2015	Trend 2005-2015	Relative Abundance
Eastern towhee	57	-1.37	-1.96	-15.88

For detailed discussion of the specific habitats or communities represented by the MIS, please refer to the Forest Plan, Chapter 2 (Forest-wide Direction), pp. 2-10 through 2-18 and the Final Environmental Impact Statement (FEIS) for the Forest Plan, Chapter 3, pp. 3-63 through 3-67, "Major Forest Communities," "Pine and Pine-Oak".

The effects for all three MIS species selected for the project would be beneficial.

Special Habitat Indicators

Special habitat attributes such as hard and soft mast, den trees, snags, downed wood, and brushy areas are necessary elements for certain species. A variety of Forest Plan goals, objectives, and standards provide for the protection, restoration, and maintenance of these elements. Taking no action to implement treatments would maintain the status quo of habitat conditions and trends.

[2] State bird population data are summarized from the on-line Breeding Bird Survey Data Application (Sauer et. al., 2017).

Table 7. Significance of the Proposed Action on Special Habitat Indicator Species.

Special Habitat	Indicator Species	Significant Effect?
Snags and Downed Wood Habitat	Pileated woodpecker	No
Interior Forest Habitat	Ovenbird	No
Riparian Habitat	Acadian flycatcher	No

Biological Community Indicators

Some species can indicate effects to major biological communities and whether management activities are successful in maintaining or restoring composition, structure and function of forest communities. Taking no action to implement treatments would maintain the status quo of the current conditions and trends within the biological communities.

Table 8. Significance of the Proposed Action on Management Indicator Species.

Biological Community	Indicator Species	Significant Effect?
Mid- and Late Successional Pine and Pine-Oak Forest	Pine Warbler	No
Dense Under- and Mid-Story in Mesic Mature Forest	Hooded Warbler	No
Drier Mid- to Late-Successional Forest	Scarlet Tanager	No
Early-Successional Forest	Eastern Towhee	No

Demand Species

National Forest lands provide large tracts of public ownership with opportunities for hunting, fishing, and wildlife viewing. The following species are identified in the Forest Plan as Management Indicator Species where effects of National Forest management are important to meeting public demand. Monitoring of hunting/harvests will indicate whether management of the habitat is being accomplished at appropriate levels. Taking no action to implement treatments would maintain the status quo of habitat conditions and trends affecting demand species.

Table 9. Effects of the Proposed Action on Demand Species.

Demand Species	Significant Effect?
Eastern wild turkey	No
Black bear	No
White-tailed deer	No

Migratory Species

The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA), Executive Order 13186, and the Bald and Golden Eagle Protection Act (BGEPA). To comply, the Forest Service entered into a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service. The parties agreed that through the NEPA process, the Forest Service will evaluate the effects of agency actions on migratory birds, focusing first on species of management concern along with their priority habitats and key risk factors.

The direct, indirect and cumulative effects of proposed actions on migratory bird species of concern, including bald and golden eagles, are analyzed and disclosed for any avian locally rare species identified to be present, or likely to be present based on suitable habitat, within the projects area. In addition, avian MIS are designed to represent the suite of migratory bird species that require similar habitat needs on the George Washington and Jefferson National Forests (USDA Forest Service, 2004c, USDA Forest Service, 2014). As noted in the appropriate sections above, it can be reasonably concluded that there will be no significant effects to avian locally rare species or avian MIS from the proposed action. Taking no action to implement treatments would maintain the status quo of habitat conditions and trends.

Physical Environment

Water Resources

This section summarizes the potential impacts of the proposed action on hydrology and water resources within the project analysis area.

The High Knob Viewshed and Habitat Improvement Project is within three sub-watersheds: Straight Fork – Stony Creek 060102050606, Black Creek Powell River – Powell River 060102060104, and Butcher Fork – South Fork of the Powell River 060102060201.

Direct, Indirect and Cumulative Effects

Effects from Herbicide Application

For a complete discussion of the effects of the application of herbicides on soil and water resources, consult *Environmental Assessment of Forest-Wide Non-Native Invasive Plant Control George Washington and Jefferson National Forests* (hereinafter referred to as the Herbicide EA) (USDA Forest Service, 2010).

All treatments undertaken would conform to policy, laws and regulations, and Forest Plan standards and guidelines. Mitigation measures listed in Chapter 2.3 of the Herbicide EA (pp. 20-28) would additionally minimize soil and water contamination by herbicides.

Proposed treatments include spraying of cut stumps and foliar application to control saplings, seedlings, and sprouts. Direct effects to soil and water resources may include some limited drift from fine mists during application. Once in the soils, some herbicides can migrate via gravity, leaching, and surface runoff to other soils, groundwater, or surface water. To determine the level of risk for accumulation of herbicide residues on soils and possible contamination of ground and surface water, factors such as persistence (measured in half-life), mobility, and mechanisms for degradation have been reviewed (Appendix C, Herbicide EA). However, most of the herbicide treatments would be applied directly to targeted species and relatively little herbicide would make contact with the soil.

Approved herbicides applied under the proper conditions should have no effect on water resources in the project area or downstream.

Effects to Streams from Sedimentation

The project proposes approximately 0.4 miles of bladed skid trails and one landing.

Sediment can cause turbidity, and is therefore subject to standards and regulations set forth by the Commonwealth of Virginia. State regulations require the voluntary application of Best Management Practices (BMPs) to control sedimentation during timber management activities; these can be found in *Virginia's Forestry Best Management Practices for Water Quality Technical Guide* (Virginia Department of Forestry, 2011). The Virginia Department of Forestry water quality monitoring has shown that, when forestry BMPs are properly implemented, timber harvests can be accomplished without a large or persistent increase in sediment or stream water temperatures, or a shift in macroinvertebrate species composition.

Some sediment occurs naturally in all stream systems and is part of the natural geologic processes. Natural watershed disturbance regimes of fire, flood, insect, and disease result in a range of natural variability of sediment to which the stream channel has adjusted. However, human caused soil disturbing activity such as road construction activities, log landings, skid

roads, and skid trails can produce volumes and rates of sediment delivery to streams that are in excess of the stream's ability to accommodate it. Excess sediment in streams can coat the stream bottom, fill pools, and reduce the carrying capacity of the stream for fish and stream insects. Fine sediment can fill the voids between gravel particles in the streambed, reducing the movement of aquatic insects, water and oxygen. The effects of sediment delivered to a stream channel diminish as watershed size increases. Most vulnerable are small, sensitive headwaters catchments where concentrated timber harvest activity can have profound results.

The effect that naturally occurring forest fires or prescribed burns can have on increased sediment production within a watershed depends on burn intensity. Low intensity burns do not scorch the soil organic layers nor do they burn the roots of existing vegetation, which starts to re-grow during the next growing season. No bare mineral soil is exposed as the result of the burn. Research on wildfire and prescribed burning indicates that low intensity or "cool" burns result in only minor increases in erosion and sedimentation (Beschta, 1990).

Hand line construction for this project will be accomplished using leaf blowers and rakes. Mineral soil will be relatively undisturbed. Accordingly, this activity will have little impact on erosion and sedimentation.

Rates of soil erosion and sedimentation are greatest at the time of soil disturbing activity, decrease as the soil stabilizes, and vegetation begins to grow. Second year sediment rates are estimated to be only 35 percent of first year rates. After four years, sediment rates have usually returned to pre-disturbance levels. All these projected levels are based on the cessation of road traffic. Illegal or continued administrative use will extend the amount of time it takes to return to near-background.

A sediment model was not used to estimate the tons of sediment produced by each road, landing, or excavated skid trail due to the limited scope of the project.

Cumulative Effects

Past Actions

Construction of the new tower after the destruction of the historic High Knob Tower disturbed approximately three acres, and was complete in the middle of 2014. Sedimentation from the construction activities would have returned to near background levels after approximately five years (Croke et. al., 2001).

Present Actions

No present actions are occurring within the project area that could have a cumulative effect with the proposed action.

Future Foreseeable Actions

No known future foreseeable actions are slated to occur in the project area.

Conclusion

Hydrologic analysis was not conducted for this project due to the small scale of disturbance. Based on professional opinion, sediment from this project to either the Clinch or the Powell River would be insignificant and immeasurable. Sediment is unlikely to leave the project area. This project should have no significant direct, indirect, or cumulative effects on hydrology and water resources within the project analysis area.

Soils Resources

This section summarizes the potential impacts of the proposed action on soils resources within the project analysis area.

The effects analysis for soils resources within the project area focuses on treatment areas where there is potential for soil disturbance; this is estimated to be less than ten acres. Activities within these treatment areas include prescribed burns, timber harvest, and herbicide treatment. Disturbance areas associated with timber harvest include a log landing on a previously disturbed site and corridors for skid trails.

Direct and Indirect Effects

The proposed action is expected to have both short and long-term effects to the soil resource, but not to a significant degree. The primary concern would be increased erosion associated with loamy soils and steeper slopes. Erosion can occur on long unimpeded slopes where mineral soil is exposed to raindrop impact and overland water flow; this can affect soil productivity when soil is transported offsite. Design criteria such as the use of logging slash, water bars, and establishment of vegetation to check the flow of water down the travel way can interrupt this unimpeded movement of water. State BMPs will also limit operations to areas less than 35 percent slope and avoid the erosion associated with these steep slopes. The potential for soil movement is expected to be short-term and limited to a one to three year recovery period.

Compaction is not a concern generally associated with the types of soils found within the project area as the soils are well drained, do not have perched water tables, are not prone to shrink / swell action, and have a high sand component due to the geologic parent material. Although, compaction is expected on log landings, skid roads and temporary roads. Within harvest units, the upper few inches of soil are expected to recover quickly from harvest related compaction, except where rutting may have occurred. If an area is determined to be heavily compacted, it can be ripped and seeded to help minimize the effects of compaction, increase water infiltration and promote revegetation.

The proposed activities of timber harvest, herbicide application, and skid trail utilization are not expected to have any long term effects to soil productivity. These activities will not be displacing or deeply compacting the soil occurring in these areas. Short term exposure of bare soil created by the proposed activities will be revegetated and the soil surface is not expected to erode after a recovery period.

The proposed biomass removal is not expected to have significant impacts to soil productivity since the soils in the large extent of the project area are not sensitive to soil acidification.

It is expected that the proposed action will have long-term impacts on no more than eight percent of the activity area. Effects to the soils from this project are considered not significant when 85 percent of the activity area retains its pre-activity long-term soil productivity (Forest Service Handbook, R8, 2509.18.2.2, Soil Quality Standards).

Taking no action to implement treatments would maintain the status quo of conditions and trends affecting the soils resource. There would be no new soil disturbance and thus no effect.

Cumulative Effects

The impacts of past actions have contributed to the existing condition of the soil resources within the project area; however, no continuing impacts from past actions have been identified. There are no known present or future foreseeable actions that will impact the soil resources and overlap temporally or spatially with the High Knob Tower Viewshed and Habitat Improvement Project activities.

The conclusion is that there will be no cumulative impacts from the proposed action when added to these past, present and foreseeable future management actions.

Social Environment

Recreation

The project area occurs within a Roaded Natural (RN) area as determined by the Recreation Opportunity Spectrum (ROS). A small portion of the Chief Benge's Scout Trail (Trail No. 401), trail class two, lies within the project area. Recreation opportunities within the project area include access to a popular observation tower, which provides opportunities for wildlife and other nature viewing. The parking area associated with the tower also serves as a trail access point. There are no developed camping opportunities within the project area. System roads accessing the project area include 238 and 238A, which are open year-round in this location. Visual resources are addressed in the section below.

During the implementation of high elevation pollinator habitat enhancement activities as described, there may be short-term negative impacts to recreation within the project area.

Negative impacts would include impeding or preventing access to the area including roads and Trail # 401 as well as noise disturbance to recreationists, and in some cases the wildlife they seek, while project activities are occurring. These potential impacts are the result of equipment operation and other project tasks which cannot be safely undertaken with visitors present in the project area.

Following implementation, the habitat enhancement activities will benefit recreationists choosing to use the area. Pollinator habitat expansion, particularly the removal of timber, adjacent to the currently available pollinator habitat will expand the view available from the observation tower, and expanded pollinator habitat will lead to expanded nature viewing opportunities.

The activities proposed are consistent with expected conditions encountered within the Recreation Opportunity Spectrum (ROS) classification of Roaded Natural (RN).

The short-term negative impacts and expansion of opportunities should have no significant direct, indirect, or cumulative effects on visitors and recreation within the project analysis area.

Scenic Resources

The observation site on High Knob has been maintained as an open area since the 1930s; initially as a lookout for wildland fires and later converted to a scenic viewing site. As such, the historic and existing landscape character of the site is a cultural, maintained, opening and developed with improvements to facilitate viewing and photographing scenery, birds, other wildlife, flora, butterflies and other insects.

Natural regeneration of trees reduced the size of the maintained opening and therefore partially obstructs views from the trail to the tower and from the tower itself.

The Scenic Integrity Objective (SIO) is High, meaning the casual observer should not notice a change or deviation from the landscape character that is valued. In this case, the landscape character is a cultural, maintained opened area. The proposal is a result of the change or deviation from that landscape character due to the encroaching trees partially obscuring the view. The project would restore the valued landscape character and therefore would meet the High SIO.

The management prescription 8.E.4.b allows for up to ten percent early successional habitat to provide flight corridors and foraging habitat for the Indiana bat. The expansion of the existing pollinator species planted along the access path to the tower will enhance the scenery and the opportunity for viewing flora, wildlife and a variety of insect species.

The proposed action is not expected to have any significant direct, indirect, or cumulative effects to scenic resources or the landscape character of the site within the project analysis area.

Project Consultation and Coordination

A. Agencies & Organizations Consulted

The Forest Service consulted the following Federal, state, and local agencies and organizations during the development of this Environmental Assessment:

- Eastern Band of Cherokee Indians
- Cherokee Nation
- United Keetoowah Band of Cherokee
- U.S. Fish and Wildlife Service, Southwest Virginia and Virginia Field Offices
- Virginia Department of Game and Inland Fisheries
- Virginia Department of Conservation & Recreation, Division of Natural Heritage

B. Forest Service Interdisciplinary Team Members

Michelle Davalos, District Ranger

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Appendix A - Photo Analysis of the High Knob Tower Project

Figure 3. View to the east from the High Knob Tower illustrating foreground obstruction.

Figure 4. View to the north from the High Knob Tower illustrating foreground obstruction.

Figure 5. View to the south from the High Knob Tower illustrating foreground obstruction.

Figure 6. High Knob view toward Eagle Knob and the parking lot ca 1940s

Figure 7. High Knob view toward Eagle Knob and the parking lot at present.

Figure 8. View looking north from the northwest corner of the parking lot ca 1950s. Pictured left to right: unknown man, Pate Flanary, and Jack Fulcher.

Figure 9. View looking north from the northwest corner of the parking lot. Present day, same location with men super-imposed.